

学术报告

Least Squares Estimator for path-distribution
dependent SDEs via Discrete-time
Observations

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Abstract: In this talk, we study a least squares estimator for an unknown parameter in the drift coefficient of a path-distribution dependent stochastic differential equation involving a small dispersion parameter. Our estimator is based on discrete time observations of the path-distribution dependent SDEs involved. More precisely, if the coefficients satisfy global Lipschitz condition, the estimator is based on classical Euler-Maruyama scheme, whereas, in the case that the coefficients follow the weak monotone condition, the estimator is established on tamed Euler-Maruyama algorithm. We show that the least squares estimator obtained is consistent with the true value, we also obtain the rate of convergence and derive the asymptotic distribution of least squares estimator.

欢迎大家参加！